

FACT SHEET FOR STATE WASTE DISCHARGE PERMIT NO. ST 7337
ENUMCLAW TRANSFER STATION

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INTRODUCTION

This fact sheet is a companion document to the draft State Waste Discharge Permit No. ST 7337. The Department of Ecology (the Department) is proposing to issue this permit, which will allow discharge of wastewater to the Enumclaw Wastewater Treatment Plant. This fact sheet explains the nature of the proposed discharge, the Department's decisions on limiting the pollutants in the wastewater, and the regulatory and technical bases for those decisions.

Washington state law (RCW 90.48.080 and 90.48.160) requires that a permit be issued before discharge of wastewater to waters of the state is allowed. This statute includes commercial or industrial discharges to sewerage systems operated by municipalities or public entities which discharge into public waters of the state. Regulations adopted by the state include procedures for issuing permits and establish requirements which are to be included in the permit (Chapter 173-216 WAC).

This fact sheet and draft permit are available for review by interested persons as described in Appendix A—Public Involvement Information.

The fact sheet and draft permit have been reviewed by the Permittee. Errors and omissions identified in these reviews have been corrected before going to public notice. After the public comment period has closed, the Department will summarize the substantive comments and the response to each comment. The summary and response to comments will become part of the file on the permit and parties submitting comments will receive a copy of the Department's response. The fact sheet will not be revised. Changes to the permit will be addressed in Appendix D—Response to Comments.

GENERAL INFORMATION

Applicant:	King County Department of Natural Resources
Facility Name and Address:	Enumclaw Transfer Station 1650 Battersby Avenue East Enumclaw, WA 98022
Type of Facility:	Solid Waste Transfer Station
Facility Discharge Location:	Latitude: 47° 12' 20" N. Longitude: 121° 57' 29" W.
Treatment Plant Receiving Discharge:	Enumclaw Wastewater Treatment Plant
Contact at Facility:	Name: Bob Jones Telephone #: (206) 296-0469
Responsible Official:	Name: Neil S. Fujii Address: 400 Yesler Way, Room 600, Seattle, WA 98104-7775 Telephone #: (206) 296-4419 FAX #: (206) 296-8431

BACKGROUND INFORMATION

DESCRIPTION OF THE FACILITY

HISTORY

This facility was opened in 1992.

INDUSTRIAL PROCESSES

This facility is designed to transfer 200 tons per day of municipal solid waste from collection trucks to more efficient long haul trucks. Waste flow is fairly constant. The facility occupies 26.7 acres of land just east of Enumclaw. Operation is daily from 8:00 AM to 5:30 PM. Water use is minimal as a result of strong water conservation measures. Wastewater comes from water in the waste and a very small amount used for cleaning. Wastewater treatment consists of best management practices and oil–water separators. This is a renewal of an existing permit-by-rule.

PERMIT STATUS

An application for permit renewal was submitted to the Department on March 3, 2003. The Department requested additional information which was received May 14, 2003. The Department accepted the application materials on June 24, 2003.

SUMMARY OF COMPLIANCE WITH THE PREVIOUS PERMIT

During the term of the permit, the Permittee has had three violations of the permit limits as follows:

PARAMETER	TIME	REPORT	LIMIT
TSS	3 rd Quarter 2000	590 lbs/day	25 lbs/day
O&G	2 nd Quarter 2001	190 mg/L	100 mg/L
O&G	2 nd Quarter 2002	120 mg/L	100 mg/L

WASTEWATER CHARACTERIZATION

The concentration of pollutants in the discharge was reported in the permit application and in discharge monitoring reports. The proposed wastewater discharge is characterized for the following parameters of significance:

PARAMETER	CONCENTRATION
pH	6.9 SU
Oil and Grease	39 mg/l
BOD ₅	495 mg/l
TSS	215 mg/l

PROPOSED PERMIT LIMITATIONS

State regulations require that limitations set forth in a waste discharge permit must be based on the technology available to treat the pollutants (technology-based) or be based on the effects of the pollutants to the POTW (local limits). Wastewater must be treated using all known, available, and reasonable treatment (AKART) and not interfere with the operation of the POTW.

The minimum requirements to demonstrate compliance with the AKART standard and specific design criteria for this facility were determined in the engineering report Enumclaw Transfer/Recycling Station, R.W. Beck and Associates, November 1991.

The more stringent of the local limits-based or technology-based limits are applied to each of the parameters of concern. Each of these types of limits is described in more detail below.

TECHNOLOGY-BASED EFFLUENT LIMITATIONS

All waste discharge permits issued by the Department must specify conditions requiring available and reasonable methods of prevention, control, and treatment of discharges to waters of the state (WAC 173-216-110). The following permit limitations are necessary to satisfy the requirement for AKART: None.

EFFLUENT LIMITATIONS BASED ON LOCAL LIMITS

In order to protect the Enumclaw Wastewater Treatment Plant from pass-through, interference, concentrations of toxic chemicals that would impair beneficial or designated uses of sludge, or potentially hazardous exposure levels, limitations for certain parameters are necessary. These limitations are based on local limits established by the Enumclaw Wastewater Treatment Plant and codified in ordinance. Applicable limits for this discharge include the following:

PARAMETER	LIMIT
pH	Between 5 and 9 SU
Oil and Grease	100 milligrams per liter
BOD ₅	25 pounds per day
TSS	25 pounds per day

PERFORMANCE BASED LIMITS

The Permittee has not come close to the limits based on local limits. The results of monitoring for the period January 1999 through January 2001 show large variations in performance. It is believed that a part of this variation is the approximate flow measuring method stated in the previous permit. As a result, a flow metering device is required in the Schedule of Compliance and new limits are set based on the Permit Writers Manual procedure for performance based limits.

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COMPARISON OF LIMITATIONS WITH THE EXISTING PERMIT ISSUED OCTOBER 27, 1998

Parameter	Previous Monthly Average	Proposed Monthly Average	Previous Maximum Daily	Proposed Maximum Daily
pH, S.U.	N/A	5 to 9	5 to 9	5 to 9
Oil and Grease, mg/L	N/A	100	100	100
BOD ₅ , lbs.	N/A	4	25	18
TSS, lbs.	N/A	4	25	20

MONITORING REQUIREMENTS

Monitoring, recording, and reporting are specified to verify that the treatment process is functioning correctly, and that effluent limitations are being achieved (WAC 173-216-110).

The monitoring location is at Manhole No. 1, through which all the process wastewater flows. Significant flow from this facility occurs only when it is raining. This rainwater is collected at Catch Basin No. 12 that collects runoff from a trailer parking area. Flow will be computed using the drainage area of the truck parking area multiplied by the 24-hour rainfall measured at the site rain gauge. The formula is derived as follows:

$$\text{Flow} = 6100 \text{ square feet} \times 24\text{-hour precipitation in inches} \times 1 \text{ foot}/12 \text{ inches} \times 7.48 \text{ gallons/cubic foot}$$

$$\text{Flow} = 3802 \times 24\text{-hour precipitation}$$

OTHER PERMIT CONDITIONS

REPORTING AND RECORDKEEPING

The conditions of S3 are based on the authority to specify any appropriate reporting and recordkeeping requirements to prevent and control waste discharges (WAC 273-216-110 and 40 CFR 403.12 (e),(g), and (h)).

OPERATIONS AND MAINTENANCE

The proposed permit contains condition S.5. as authorized under Chapter 173-240-150 WAC and Chapter 173-216-110 WAC. It is included to ensure proper operation and regular maintenance of equipment, and to ensure that adequate safeguards are taken so that constructed facilities are used to their optimum potential in terms of pollutant capture and treatment.

PROHIBITED DISCHARGES

Certain pollutants are prohibited from being discharged to the POTW. These include substances that cause pass-through or interference, pollutants which may cause damage to the POTW or harm to the

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POTW workers (Chapter 173-216 WAC) and the discharge of designated dangerous wastes not authorized by this permit (Chapter 173-303 WAC).

DILUTION PROHIBITED

The Permittee is prohibited from diluting its effluent as a partial or complete substitute for adequate treatment to achieve compliance with permit limitations.

SPILL PLAN

The Permittee has developed a plan for preventing the accidental release of pollutants to state waters and for minimizing damages if such a spill occurs. The proposed permit requires the Permittee to update this plan and submit it to the Department.

GENERAL CONDITIONS

General Conditions are based directly on state laws and regulations and have been standardized for all industrial waste discharge to POTW permits issued by the Department.

Condition G1 requires responsible officials or their designated representatives to sign submittals to the Department. Condition G2 requires the Permittee to allow the Department to access the treatment system, production facility, and records related to the permit. Condition G3 specifies conditions for modifying, suspending or terminating the permit. Condition G4 requires the Permittee to apply to the Department prior to increasing or varying the discharge from the levels stated in the permit application. Condition G5 requires the Permittee to construct, modify, and operate the permitted facility in accordance with approved engineering documents. Condition G6 prohibits the Permittee from using the permit as a basis for violating any laws, statutes or regulations. Conditions G7 and G8 relate to permit renewal and transfer. Condition G9 requires the Permittee to control production or wastewater discharge in order to maintain compliance with the permit. Condition G10 prohibits the reintroduction of removed pollutants into the effluent stream for discharge. Condition G11 requires the payment of permit fees. Condition G12 describes the penalties for violating permit conditions.

PUBLIC NOTIFICATION OF NONCOMPLIANCE

A list of all industrial users which were in significant noncompliance with Pretreatment Standards or Requirements during any of the previous four quarters may be annually published by the Department in a local newspaper. Accordingly, the Permittee is apprised that noncompliance with this permit may result in publication of the noncompliance.

RECOMMENDATION FOR PERMIT ISSUANCE

This proposed permit meets all statutory requirements for authorizing a wastewater discharge, including those limitations and conditions believed necessary to control toxics. The Department proposes that the permit be issued for a period of five years.

APPENDICES

APPENDIX A—PUBLIC INVOLVEMENT INFORMATION

The Department has tentatively determined to reissue a permit to the applicant listed on page 1 of this fact sheet. The permit contains conditions and effluent limitations which are described in the rest of this fact sheet.

The Department will publish a Public Notice of Draft (PNOD) on _____, in *Courier Harold* to inform the public that a draft permit and fact sheet are available for review. Interested persons are invited to submit written comments regarding the draft permit. The draft permit, fact sheet, and related documents are available for inspection and copying between the hours of 8:00 a.m. and 5:00 p.m. weekdays, by appointment, at the regional office listed below. Written comments should be mailed to:

Water Quality Permit Coordinator
Department of Ecology
Eastern Regional Office
4601 North Monroe, Suite 202
Spokane, WA 99205-1295

Any interested party may comment on the draft permit or request a public hearing on this draft permit within the thirty (30) day comment period to the address above. The request for a hearing shall indicate the interest of the party and reasons why the hearing is warranted. The Department will hold a hearing if it determines there is a significant public interest in the draft permit (WAC 173-216-100). Public notice regarding any hearing will be circulated at least thirty (30) days in advance of the hearing. People expressing an interest in this permit will be mailed an individual notice of hearing.

The Department will consider all comments received within thirty (30) days from the date of public notice of draft indicated above, in formulating a final determination to issue, revise, or deny the permit. The Department's response to all significant comments is available upon request and will be mailed directly to people expressing an interest in this permit.

Further information may be obtained from the Department by telephone, (360) 407-6280, or by writing to the address listed above.

This permit was written by Gary Anderson.

APPENDIX B—GLOSSARY

Ammonia—Ammonia is produced by the breakdown of nitrogenous materials in wastewater. Ammonia is toxic to aquatic organisms, exerts an oxygen demand, and contributes to eutrophication. It also increases the amount of chlorine needed to disinfect wastewater.

Average Monthly Discharge Limitation—The average of the measured values obtained over a calendar month's time.

Best Management Practices (BMPs)--Schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the state. BMPs include treatment systems, operating procedures, and practices to control: plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may be further categorized as operational, source control, erosion and sediment control, and treatment BMPs.

BOD₅--Determining the Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of organic material present in an effluent that is utilized by bacteria. The BOD₅ is used in modeling to measure the reduction of dissolved oxygen in a receiving water after effluent is discharged. Stress caused by reduced dissolved oxygen levels makes organisms less competitive and less able to sustain their species in the aquatic environment. Although BOD is not a specific compound, it is defined as a conventional pollutant under the federal Clean Water Act.

Bypass—The intentional diversion of waste streams from any portion of the collection or treatment facility.

Categorical Pretreatment Standards—National pretreatment standards specifying quantities or concentrations of pollutants or pollutant properties which may be discharged to a POTW by existing or new industrial users in specific industrial subcategories.

Compliance Inspection - Without Sampling--A site visit for the purpose of determining the compliance of a facility with the terms and conditions of its permit or with applicable statutes and regulations.

Compliance Inspection - With Sampling--A site visit to accomplish the purpose of a Compliance Inspection - Without Sampling and as a minimum, sampling and analysis for all parameters with limits in the permit to ascertain compliance with those limits; and, for municipal facilities, sampling of influent to ascertain compliance with the 85 percent removal requirement. Additional sampling may be conducted.

Composite Sample—A mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be "time-composite"(collected at constant time intervals) or "flow-proportional" (collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increased while maintaining a constant time interval between the aliquots.

Construction Activity—Clearing, grading, excavation and any other activity which disturbs the surface of the land. Such activities may include road building, construction of residential houses, office buildings, or industrial buildings, and demolition activity.

Engineering Report—A document, signed by a professional licensed engineer, which thoroughly examines the engineering and administrative aspects of a particular domestic or industrial wastewater facility. The report shall contain the appropriate information required in WAC 173-240-060 or 173-240-130.

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Grab Sample—A single sample or measurement taken at a specific time or over as short period of time as is feasible.

Industrial User—A discharger of wastewater to the sanitary sewer which is not sanitary wastewater or is not equivalent to sanitary wastewater in character.

Industrial Wastewater—Water or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater. These wastes may result from any process or activity of industry, manufacture, trade or business, from the development of any natural resource, or from animal operations such as feed lots, poultry houses, or dairies. The term includes contaminated storm water and, also, leachate from solid waste facilities.

Interference— A discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal and;

Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent state or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including state regulations contained in any state sludge management plan prepared pursuant to subtitle D of the SWDA), sludge regulations appearing in 40 CFR Part 507, the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

Local Limits—Specific prohibitions or limits on pollutants or pollutant parameters developed by a POTW.

Maximum Daily Discharge Limitation—The highest allowable daily discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. The daily discharge is calculated as the average measurement of the pollutant over the day.

Method Detection Level (MDL)--The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is above zero and is determined from analysis of a sample in a given matrix containing the analyte.

Pass-through— A discharge which exits the POTW into waters of the—state in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation), or which is a cause of a violation of state water quality standards.

pH—The pH of a liquid measures its acidity or alkalinity. A pH of 7 is defined as neutral, and large variations above or below this value are considered harmful to most aquatic life.

Potential Significant Industrial User--A potential significant industrial user is defined as an Industrial User which does not meet the criteria for a Significant Industrial User, but which discharges wastewater meeting one or more of the following criteria:

- a. Exceeds 0.5 % of treatment plant design capacity criteria and discharges <25,000 gallons per day or;

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- b. Is a member of a group of similar industrial users which, taken together, have the potential to cause pass through or interference at the POTW (e.g. facilities which develop photographic film or paper, and car washes).

The Department may determine that a discharger initially classified as a potential significant industrial user should be managed as a significant industrial user.

Quantitation Level (QL)-- A calculated value five times the MDL (method detection level).

Significant Industrial User (SIU)--

1) All industrial users subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N and;

2) Any other industrial user that: discharges an average of 25,000 gallons per day or more of process wastewater to the POTW (excluding sanitary, noncontact cooling, and boiler blow-down wastewater); contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or is designated as such by the Control Authority* on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement (in accordance with 40 CFR 403.8(f)(6)).

Upon finding that the industrial user meeting the criteria in paragraph 2, above, has no reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement, the Control Authority* may at any time, on its own initiative or in response to a petition received from an industrial user or POTW, and in accordance with 40 CFR 403.8(f)(6), determine that such industrial user is not a significant industrial user.

*The term "Control Authority" refers to the Washington State Department of Ecology in the case of non-delegated POTWs or to the POTW in the case of delegated POTWs.

Slug Discharge—Any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch discharge to the POTW. This may include any pollutant released at a flow rate which may cause interference with the POTW.

State Waters—Lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington.

Stormwater—That portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a storm water drainage system into a defined surface water body, or a constructed infiltration facility.

Technology-based Effluent Limit—A permit limit that is based on the ability of a treatment method to reduce the pollutant.

Total Coliform Bacteria—A microbiological test which detects and enumerates the total coliform group of bacteria in water samples.

Total Dissolved Solids—That portion of total solids in water or wastewater that passes through a specific filter.

Total Suspended Solids (TSS)--Total suspended solids is the particulate material in an effluent. Large quantities of TSS discharged to a receiving water may result in solids accumulation. Apart from any toxic effects attributable to substances leached out by water, suspended solids may kill fish, shellfish, and other aquatic organisms by causing abrasive injuries and by clogging the gills and respiratory passages of

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various aquatic fauna. Indirectly, suspended solids can screen out light and can promote and maintain the development of noxious conditions through oxygen depletion.

Water Quality-based Effluent Limit—A limit on the concentration of an effluent parameter that is intended to prevent the concentration of that parameter from exceeding its water quality criterion after it is discharged into a receiving water.

APPENDIX C – PERFORMANCE BASED LIMITS

ENUMCLAW TRANSFER STATION TSS AND BOD PERFORMANCE																			
Date/rdng	Jan-99	Apr-99	Jul-99	Oct-99	Jan-00	Apr-00	Jul-00	Oct-00	Jan-01	Apr-01	Jul-01	Oct-01	Jan-02	Apr-02	Jul-02	Dec-02	Jan-03	AVG	STDEV
BOD	4.61	3.42	0.57	0.32	0.99	0.86	2.9	1.2	2.41	1.17	0.05	0.21	11.3	4.62	0.26	0.15	4.6	2.331765	
LN BOD	1.528228	1.229641	-0.562119	-1.139434	-0.01005	-0.150823	1.064711	0.182322	0.879627	0.157004	-2.995732	-1.560648	2.424803	1.530395	-1.347074	-1.89712	1.526056	0.050576	1.47438
TSS	0.42	8.37	5.07	5.9	1.08	0.56	1.66	1.03	0.82	0.12	1.36	0.35	8.73	2.56	0.02	0.14	3.56	2.455882	
LN TSS	-0.867501	2.124654	1.623341	1.774952	0.076961	-0579818	0.506818	0.029559	-0.198451	-2.120264	0.307485	-1.049822	2.166765	0.940007	-3.912023	-1.96613	1.269761	0.00743	1.653466

APPENDIX D – RESPONSE TO COMMENTS

Comment 1.

As phosphorus is a major concern for WWTP's discharging to fresh water, shouldn't they be monitoring this parameter?

Response:

Phosphorus is one of approximately 128 substances that are a major concern for discharge to fresh water. In the absence of categorical limits in federal regulations, the only guide to which substances need to be monitored are the limits expressed in the WWTP's municipal sewer ordinance. Enumclaw does not limit phosphorus in its ordinance.

Comment 2.

S2, monitoring requirements, the table has BOS\D and TSS samples being collected by grab sample. Our permit lists these parameters to be collected by 24 hour composite. Why should there be a difference?

Response:

Ecology is unfamiliar with what is meant by "our permit". Given the low volume and batch nature of the facility discharge, Ecology could see no justification for composite sampling.

Comment 3:

To the best of my knowledge, we have never seen any of their analysis reports as we did with the Farman Bros. permit before they shut down.

Response:

This comment is taken to mean that the City of Enumclaw would like to have a copy of the DSMRs submitted to Ecology sent to the WWTP as well. This requirement can be added to the permit if requested by the City staff. The permit is hereby modified to include this requirement.

Comment 4:

How often is the Oil-Water separator serviced and documented? I didn't see this mentioned in the permit.

Response: Section S7 has been added to the permit to require an operation and maintenance schedule to the permit.